

Rec'd PCT/PTO 24 OCT 2005

Practitioner's Docket No. U 015738-6

CHAPTER II

IN THE UNITED STATES ELECTED OFFICE (EO/US)

PCT/FI03/000874 17 November 2003 18 November 2002  
INTERNATIONAL APPLICATION NO. INTERNATIONAL FILING DATE PRIORITY DATE CLAIMED

METHOD IN CONJUNCTION WITH A SPRAYING APPARATUS, AND SPRAYING APPARATUS  
TITLE OF INVENTION

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PRELIMINARY AMENDMENT

Please amend the above application as follows:

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1. (original) Method for use in conjunction with a spraying apparatus, especially a fire extinguishing apparatus, said apparatus comprising a source of a medium, a pump means and means for passing at least a proportion of the medium to at least one nozzle (4), characterized in that at least some of the medium which is not passed to the nozzle is re-circulated back to the suction side of the pump means (3) when necessary and that, at least when necessary, at least some of the medium being re-circulated is passed into a discharge pipe (15) before the pump means (3).
2. (original) Method according to claim 1, characterized in that the flow into the discharge pipe (15) is restricted.
3. (currently amended) Method according to claim 1 ~~or 2~~, characterized in that at least some of the medium being re-circulated is passed into the discharge pipe (15) if the temperature of the medium reaches a set value.
4. (currently amended) Method according to ~~any one of claims 1-3~~ claim 1, characterized in that the passage into the discharge pipe (15) is opened and/or closed by means of a valve element (7) controlled on the basis of the temperature of the medium.
5. (currently amended) Method according to ~~any one of claims 1-4~~ claim 1, characterized in that the flow rate of the medium being re-circulated is reduced when the flow rate of the extinguishing medium supplied to the nozzles (4) is increased.

6. (currently amended) Method according to ~~any one of claims 1-5~~ claim 1, characterized in that the flow rate of the medium being re-circulated is increased when the flow rate of the extinguishing medium supplied to the nozzles (4) is reduced.
7. (currently amended) Method according to ~~any one of claims 1-6~~ claim 1, characterized in that the medium is a water-based liquid.
8. (currently amended) Method according to ~~any one of claims 1-7~~ claim 1, characterized in that, in the method, the medium is circulated at a high pressure.
9. (original) Apparatus for use in conjunction with a spraying apparatus, especially a fire extinguishing apparatus, said apparatus comprising a source of a medium, a pump means and means for conducting at least some of the medium to at least one nozzle (4), characterized in that the apparatus comprises means for re-circulating at least some of the medium from the pressure side of the pump means (3) to the suction side of the pump means when necessary, and that the apparatus comprises means for passing at least some of the medium being circulated into a discharge pipe (15) at least when necessary.
10. (original) Apparatus according to claim 9, characterized in that the pump means (3) is a constant-volume pump, especially a piston pump.
11. (currently amended) Apparatus according to claim 9 ~~or 10~~, characterized in that the apparatus comprises a passage (13,14) from the pressure side of the pump means (3) to its suction side, said passage being provided with a pressure valve (6).

12. (currently amended) Apparatus according to ~~any one of claims 9-11~~ claim 9, characterized in that the apparatus comprises a valve element (7) for opening passage into the discharge pipe (15).

13. (currently amended) Apparatus according to ~~any one of claims 9-12~~ claim 9, characterized in that the apparatus comprises means (8) for opening and/or closing the valve element (7) on the basis of the temperature of the medium.

14. (currently amended) Apparatus according to ~~any one of claims 9-13~~ claim 9, characterized in that the pump means (3) is a high pressure pump.

15. (currently amended) Apparatus according to ~~any one of claims 9-14~~ claim 9, characterized in that the discharge pipe (15) is provided with a throttle element (9).

16. (currently amended) Apparatus according to ~~any one of claims 9-15~~ claim 9, characterized in that the liquid flow passage (14) is provided with a second check valve (16) to prevent the admission of the medium being pumped from the suction side of the pump directly into the discharge pipe (15).